

Notice of Allowability	Application No.	Applicant(s)	
	09/873,016	PALUSA ET AL.	
	Examiner	Art Unit	
	Khanh Tran	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 11/02/2005.
2. ☒ The allowed claim(s) is/are 1, 5-14 and 17-20 which are renumbered as 5-6 renumbered 2-3, 8 renumbered 4, 10-11 renumbered 5-6, 9 renumbered 8, 12-13 renumbered 9-10, 20 renumbered 11, 14 renumbered 12, 17-19 renumbered 13-15.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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1. The Amendment filed on 11/02/2005 has been entered. Claims 1, 4-14 and 17-20 are pending in this Office action.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Michael Pollock, Reg. No. 29,098, on 11/30/2005.

- Claim 4 has been cancelled by Applicants because claim 4 is a duplicate of claim 5.
- Regarding claim 1, in line 2, "the delayed clock signal" has been changed to -- a delayed clock signal --.
- Regarding claim 8, in line 1, "delay circuit" has been changed to -- the delay circuit --.
- Regarding claim 9, in line 1, "delay circuit" has been changed to -- the delay circuit --.
- Regarding claim 14, in line 26, "les" has been changed to -- less --.

3. Claims has been renumbered as shown below:

claim 5 renumbered claim 2;

claim 6 renumbered claim 3;

claim 8 renumbered claim 4;

claim 10 renumbered claim 5;

claim 11 renumbered claim 6;

claim 9 renumbered claim 8;

claim 12 renumbered claim 9;

claim 13 renumbered claim 10;

claim 20 renumbered claim 11;

claim 14 renumbered claim 12;

claims 17-19 renumbered claims 13-15.

Response to Arguments

4. Applicant's arguments, see page 8 of the Amendment, filed on 11/02/2005, with respect to claims 1, 4-5 and 14 have been fully considered and are persuasive.

The rejection of claims 1, 4-5 and 14 has been withdrawn.

5. The Drawings filed on 05/30/2001 are accepted.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

6. Claims 1, 5-13 and 20 are allowed.

Regarding claim 1, claim 1 is allowed over prior art of record because the cited references, taken individually or in combination, fail to particularly disclose a delay-locked line (DLL) comprising "the phase detector includes: a D-Q flip-flop having a D input connected to receive the delayed clock signal, a clock input connected to receive the reference clock signal, and a Q output; an XNOR gate having a first input connected to receive the delayed clock signal, a second input connected to receive the reference clock signal, and an output, a first inverter having an input connected to the Q output, and an output; a second inverter having an input connected to the output of the first inverter, and an output; a first NOR gate having a first input connected to the output of the XNOR gate, a second input connected to the output of the second inverter, and an output that outputs the up signal; and a second NOR gate having a first input connected to the output of the XNOR gate, a second input connected to the output of the first inverter, and an output that outputs the down signal". The closest prior art, Yamaoka U.S. Patent 6,166,572, Watanabe U.S. Patent 5,910,741 and Zhang et al. U.S. Patent 5,559,476, either singularly or in combination, fails to anticipate or render the above underlined limitations obvious.

7. Claims 14 and 17-19 are allowed.

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Regarding claim 14, claim 14 is allowed over prior art of record because the cited references, taken individually or in combination, fail to particularly disclose a method of locking a delayed clock signal comprising "wherein the delay circuit includes a number of delay blocks, each delay block having a first predetermined delay when turned on, and a second predetermined delay when turned off, the second predetermined delay being less than the first predetermined delay". The closest prior art, Yamaoka U.S. Patent 6,166,572, Watanabe U.S. Patent 5,910,741 and Zhang et al. U.S. Patent 5,559,476, either singularly or in combination, fails to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Khanh Cong Tran

12/09/2005

Examiner KHANH TRAN